

**WHAT IS CLAIMED IS:**

1. A portable light system, comprising:
  - a. a sealed housing, wherein a portion of said housing is cylindrical in shape, said sealed housing including,
    - i. at least one light element; and
    - ii. at least one magnetic switch element configured to activate said at least one light element;
  - b. a switch interface ring element configured to move around said cylindrical portion of said housing; and
  - c. at least one magnet fixed in said switch interface ring element, said at least one magnet being operative to activate said at least one magnetic switch element within said sealed housing when movement of said switch interface ring element relative to said sealed housing brings said at least one magnet in proximity to said at least one magnetic switch element.
2. The portable light system of claim 1, wherein a plurality of relative positions of said at least one switch interface ring element and said at least one magnet defines a plurality of switch sittings, said plurality of switch settings controlling a plurality of operational modes of said at least one light element.
3. The portable light system of claim 2, wherein said sealed housing includes a plurality of light elements.
4. The portable light system of claim 2, wherein said sealed housing includes a plurality of magnetic switch elements.
5. The portable light system of claim 2, wherein said switch interface ring element has a plurality of magnets fixed thereon.
6. The portable light system of claim 2, wherein said plurality of relative positions are enabled by a plurality of positioning elements in said portable light system.
7. The portable light system of claim 6, wherein said plurality of positioning elements include a single positioning element fixed in said switch interface ring element and a plurality of positioning elements fixed in said sealed housing.

8. The portable light system of claim 6, wherein said plurality of positioning elements include a single positioning element fixed in said sealed housing and a plurality of positioning elements fixed in said switch interface ring element.
9. The portable light system of claim 6, wherein a positioning element is fixed on a surface of said switch interface ring element.
10. The portable light system of claim 6, wherein a positioning element is fixed inside said switch interface ring element.
11. The portable light system of claim 6, wherein a positioning element is fixed on a surface of said sealed housing.
12. The portable light system of claim 6, wherein a positioning element is fixed inside said sealed housing.
13. The portable light system of claim 6, wherein said plurality of positioning elements includes a plurality of magnets.
14. The portable light system of claim 6, wherein said plurality of positioning elements includes ball and detent elements.
15. A switch mechanism, comprising:
  - a. a housing;
  - b. at least one switch element within said housing;
  - c. a switch interface element that moves relative to a surface of said housing without penetrating said housing; and
  - d. at least one switch activating element fixed in said switch interface element, said switch activating element being operative to activate said switch element within said housing when movement of said switch interface element relative to said housing brings said switch activating element in proximity to said switch element.
16. The switch mechanism of claim 15, wherein said housing includes a light element.
17. The switch mechanism of claim 15, wherein said housing is sealed.
18. The switch mechanism of claim 15, wherein a portion of said housing is cylindrical.
19. The switch mechanism of claim 18, wherein said switch interface element is a ring that moves around said cylindrical portion of said housing.

20. The switch mechanism of claim 15, wherein said switch interface element moves along a planar portion of said housing.
21. The switch mechanism of claim 15, wherein said switch interface element is fully removable from being coupled to said housing.
22. The switch mechanism of claim 15, wherein said switch element is a magnetic reed switch and said switch activating element is a magnet.
23. The switch mechanism of claim 15, wherein said switch activating element is fixed on a surface of said switch interface element.
24. The switch mechanism of claim 23, wherein said switch activating element is fixed on an interior surface of said switch interface element.
25. The switch mechanism of claim 23, wherein said switch activating element is fixed on an exterior surface of said switch interface element.
26. The switch mechanism of claim 15, wherein said switch activating element is fixed inside of said switch interface element.
27. The switch mechanism of claim 15, wherein said switch interface element has a range of movement across said housing that spans a plurality of predefined positions, each of said plurality of predefined positions defining a position of said at least one switch activating element relative to said at least one switch element, each of said plurality of predefined positions defining a different setting for said switch mechanism.
28. The switch mechanism of claim 27, wherein said switch interface element has a range of movement across said housing that spans a plurality of predefined positions, each of said plurality of predefined positions defining a position of a plurality of switch activating elements relative to a plurality of switch elements, each of said plurality of predefined positions defining a different setting for said switch mechanism.
29. The switch mechanism of claim 27, wherein said plurality of predefined positions are enabled by a plurality of positioning elements.
30. The switch mechanism of claim 29, wherein said plurality of positioning elements include a single positioning element fixed in said switch interface element and a plurality of positioning elements fixed in said housing.

31. The switch mechanism of claim 29, wherein said plurality of positioning elements include a single positioning element fixed in said housing and a plurality of positioning elements fixed in said switch interface element.
32. The switch mechanism of claim 29, wherein a positioning element is fixed on a surface of said switch interface element.
33. The switch mechanism of claim 29, wherein a positioning element is fixed inside said switch interface element.
34. The switch mechanism of claim 29, wherein a positioning element is fixed on a surface of said housing.
35. The switch mechanism of claim 29, wherein a positioning element is fixed inside said housing.
36. The switch mechanism of claim 29, wherein said plurality of positioning elements includes a plurality of magnets.
37. The switch mechanism of claim 29, wherein said plurality of positioning elements includes ball and dedent elements.
38. A switch mechanism, comprising:
  - a. a plurality of switch elements within a housing;
  - b. a switch activating element fixed in a switch interface element that moves relative to a surface of said housing; and
  - c. a plurality of load circuits within said housing, each of said plurality of load circuits being associated with at least one of said plurality of switch elements, wherein a load circuit is powered when an associated switch element is closed through the movement of said switch activating element into proximity of said associated switch element.
39. The switch mechanism of claim 38, wherein said plurality of switch elements are magnetic reed switches.
40. The switch mechanism of claim 38, wherein said housing is environmentally sealed.
41. The switch mechanism of claim 38, wherein at least one of said plurality of load circuits includes a light element.

42. The switch mechanism of claim 38, wherein selected ones of said plurality of load circuits are powered based on a position of said switch interface element relative to a surface of said housing.
43. The switch mechanism of claim 38, wherein at least two of said plurality of load circuits is in parallel.
44. The switch mechanism of claim 38, wherein a first load circuit includes a light emitting diode array and a second load circuit includes a spot bulb, said first and second load circuit being operable alone or in combination..
45. A light system, comprising:
  - a. a light emitting diode array contained within a housing, said light emitting diode array including,
    - i. a plurality of white light emitting diodes; and
    - ii. at least one light emitting diode at a different wavelength, said at least one light emitting diode at a different wavelength enabling a color balanced output of the light system.
46. The light system of claim 45, wherein said light emitting diode at a different wavelength is a yellow light emitting diode.
47. The light system of claim 45, further comprising a spot bulb, said spot bulb being positioned in the middle of said portable light system with the light emitting diode array being positioned around a parabolic reflector of said spot bulb.
48. A light system, comprising:
  - a. a battery power supply;
  - b. a voltage control element coupled to said battery power supply, said voltage control element providing a user selectable voltage output; and
  - c. a load circuit that includes a light element portion consisting of a plurality of light emitting diodes, each of said plurality of light emitting diodes being connected in series.
49. The light system of claim 48, wherein said plurality of light emitting diodes includes light emitting diodes of a plurality of colors.
50. The light system of claim 48, wherein said voltage control element comprises:

- a. an inductor;
- b. a transistor coupled to said inductor; and
- c. a controller that controls an operating frequency of said transistor.